Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A hybrid polypeptide immunogen comprising a modified ORF0657n sequence segment at least about 100 amino acids in length, wherein said modified sequence segment comprises one or more alterations that increases sequence similarity to SEQ ID NO: 1.

Claim 2 (original): The hybrid polypeptide of claim 1, wherein said modified sequence segment comprises at least about 100 amino acids of a modified amino acid sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6, provided that said modified amino acid sequence contains at least 8 amino acid alterations that increase sequence similarity to SEQ ID NO: 1.

Claim 3 (original): The hybrid polypeptide of claim 3, wherein said modified amino acid sequence is SEQ ID NO: 2 containing 8 to 100 amino acid alterations that increase sequence similarity to SEQ ID NO: 1.

Claim 4 (currently amended): The hybrid polypeptide of claim 2, wherein said modified amino acid sequence has the following sequence:
X^1-AIKNPAI-X^2- DK-X^3-H-X^4-APN-X^5- RPIDFEMK-X^6-X^7-X^8-G-X^9-QQFYHYAS-X^{10}-V-X^{11}- PARVIFT-X^{12}-X^{13}-K-X^{14}-IELGLQ-X^{15}-X^{16}-X^{17}-X^{18}-W-X^{19}-KFEVYEGDKKLP-X^{20}- KLVSYD-X^{21}-X^{22}-KDYAYIRFSVSNGT-X^{23}-X^{24}-VKIVSSTH-X^{25}-X^{26}-X^{27}-N-X^{28}-X^{29}-EKYDYTLM-X^{30}- FAQPIYN-X^{31}-X^{32}-DK-X^{33}-X^{34}-X^{35}- EEDY-X^{36}-X^{37}-X^{38}- KLLAPYKKAKTLERQVY EL-X^{39}- K-X^{40}- Q-X^{41}-KLPEKLKAEYKKKL-X^{42}-X^{43}-T-X^{44}- KAL-X^{45}-X^{46}-QVKSA-X^{47}- TEFQNV-X^{48}-PTN-X^{49}-K-X^{50}- TDLQ-X^{51}-X^{52}-X^{53}-X^{54}-VV-X^{55}-ESVEN-X^{56}-ES-X^{57}-MDTFV-X^{58}-HPIKT-X^{59}-X^{60}-LNGKKY-X^{61}-VM-X^{62}- TTND-X^{63}-YWKDF-X^{64}- VEG-X^{65}- RVRT-X^{66}- SKD-X^{67}- KNN-X^{68}- RT-X^{69}- IFPY-X^{70}- EGK-X^{71}-X^{72}-YDAIVKV-X^{73}- VKTI-X^{74}-Y-X^{75}-GQYHVRI-X^{76}- DK-X^{77}-X^{78}-X^{79} (SEQ ID NO: 58)

wherein
X^1 is either E or a D alteration;

X^2 is either K or an I alteration;
X^3 is either D or an E alteration;
X^4 is either S or a T alteration;
X^5 is either S or a W alteration;
X^6 is either K or an N alteration;
X^7 is either K or a D alteration;
X^8 is either D or a K alteration;
X^9 is either T or an E alteration;
X^{10} is either S or a T alteration;
X^{11} is either K or an E alteration;
X^{12} is either D or a K alteration;
X^{13} is either S or a T alteration;
X^{14} is either E or an I alteration;
X^{15} is either S or a T alteration;
X^{16} is either G or an A alteration;
X^{17} is either K or a S alteration;
X^{18} is either F or a T alteration;
X^{19} is either R or a K alteration;
X^{20} is either I or a V alteration;
X^{21} is either T or an S alteration;
X^{22} is either V or a D alteration;
X^{23} is either K or an R alteration;
X^{24} is either A or an E alteration;
X^{25} is either F or a Y alteration;
X^{26} is either an optionally present G insertion alteration;
X^{27} is either N or a E alteration;
X^{28} is either K or a I alteration
X^{29} is either E or a H alteration;
X^{30} is either E or a V alteration;
X^{31} is either S or a N alteration;
X^{32} is either A or a P alteration;
X^{33} is either F or an Y alteration;
X^{34} is either K or a V alteration;
X^{35} is either T or a D alteration;
X^{36} is either K or a N alteration;

X37 is either A or an L alteration;
X38 is either E or a Q alteration;
X39 is either N or an E alteration;
X40 is either I or a L alteration;
X41 is either D or an E alteration;
X42 is either E or a D alteration;
X43 is either D or a Q alteration;
X44 is either K or an R alteration;
X45 is either D or an A alteration;
X46 is either E or a D alteration;
X47 is either I or a V alteration;
X48 is either Q or a T alteration;
X49 is either E or a D alteration;
X50 is either M or an L alteration;
X51 is either D or an E alteration;
X52 is either T or an A alteration
X53 is either K or H alteration;
X54 is either Y or an F alteration;
X55 is either Y or an F alteration;
X56 is either N or a S alteration;
X57 is either M or a V alteration;
X58 is either K or an E alteration;
X59 is either G or an A alteration;
X60 is either M or a T alteration;
X61 is either M or a V alteration;
X62 is either E or a K alteration;
X63 is either D or a S alteration;
X64 is either M or an I alteration;
X65 is either Q or a K alteration;
X66 is either I or a V alteration;
X67 is either A or a P alteration;
X68 is either T or an S alteration;
X69 is either I or a L alteration;
X70 is either V or an I alteration;
X71 is either T or an A alteration;

X^{72} is either L or a V alteration;
X^{73} is either H or a V alteration;
X^{74} is either D or a G alteration;
X^{75} is either D or an E alteration;
X^{76} is either V or an I alteration;
X^{77} is either E or a D alteration;
X^{78} is either A or an I alteration;
X^{79} is either F or a N alteration;

~~X^{1} is either E or a D alteration;~~
~~X^{2} is either K or an I alteration;~~
~~X^{3} is either D or an E alteration;~~
~~X^{4} is either S or a T alteration;~~
~~X^{5} is either S or a W alteration;~~
~~X^{6}-X^{7}-X^{8} is either KKD or NDK alterations;~~
~~X^{9} is either T or an E alteration;~~
~~X^{10} is either S or a T alteration;~~
~~X^{11} is either K or an E alteration;~~
~~X^{12} is either D or a K alteration;~~
~~X^{13} is either S or a T alteration;~~
~~X^{14} is either E or an I alteration;~~
~~X15 is either S or a T alteration;~~
~~X^{16} is either G or an A alteration;~~
~~X^{17}-X^{18} is either KF or ST alterations;~~
~~X^{19} is either R or a K alteration;~~
~~X^{20} is either I or a V alteration;~~
~~X^{21} is either T or an S alteration;~~
~~X^{22} is either V or a D alteration;~~
~~X^{23} is either K or an R alteration;~~
~~X^{24} is either A or an E alteration;~~
~~X^{25} is either F or a Y alteration;~~
~~X^{26}-X^{27} is either N or GE alterations;~~
~~X^{28}-X^{29} is either KE or IH alterations;~~
~~X^{30} is either E or a V alteration;~~
~~X^{31}-X^{32} is either SA or NP alterations;~~

~~X^{33} is either F or an Y alteration;~~
~~X^{34} X^{35} is either KT or VD alterations;~~
~~X^{36} X^{37} X^{38} is either KAE or NLQ alterations;~~
~~X^{39} is either N or an E alteration;~~
~~X^{40} is either I or a L alteration;~~
~~X^{41} is either D or an E alteration;~~
~~X^{42} is either E or a D alteration;~~
~~X^{43} is either D or a Q alteration;~~
~~X^{44} is either K or an R alteration;~~
~~X^{45} is either D or an A alteration;~~
~~X^{46} is either E or a D alteration;~~
~~X^{47} is either I or a V alteration;~~
~~X^{48} is either Q or a T alteration;~~
~~X^{49} is either E or a D alteration;~~
~~X^{50} is either M or an L alteration;~~
~~X^{51} is either D or an E alteration;~~
~~X^{52} X^{53} is either TK or AH alterations;~~
~~X^{54} is either Y or an F alteration;~~
~~X^{55} is either Y or an F alteration;~~
~~X^{56} is either N or a S alteration;~~
~~X^{57} is either M or a V alteration;~~
~~X^{58} is either K or an E alteration;~~
~~X^{59} is either G or an A alteration;~~
~~X^{60} is either M or a T alteration;~~
~~X^{61} is either M or a V alteration;~~
~~X^{62} is either E or a K alteration;~~
~~X^{63} is either D or a S alteration;~~
~~X^{64} is either M or an I alteration;~~
~~X^{65} is either Q or a K alteration;~~
~~X^{66} is either I or a V alteration;~~
~~X^{67} is either A or a P alteration;~~
~~X^{68} is either T or an S alteration;~~
~~X^{69} is either I or a L alteration;~~
~~X^{70} is either V or an I alteration;~~
~~X^{71} is either T or an A alteration;~~

~~X^{72} is either L or a V alteration;~~
~~X^{73} is either H or a V alteration;~~
~~X^{74} is either D or a G alteration;~~
~~X^{75} is either D or an E alteration;~~
~~X^{76} is either V or an I alteration;~~
~~X^{77} is either E or a D alteration;~~
~~X^{78} is either A or an I alteration;~~
~~X^{79} is either F or a N alteration;~~
provided that at least 20 of said alterations are present.

Claim 5 (original): The hybrid polypeptide of claim 4, wherein said modified sequence segment comprises at least 200 amino acids of said modified amino acid sequence.

Claim 6 (previously presented): The hybrid polypeptide of claim 4, wherein said modified sequence segment comprises said modified amino acid sequence and at least 55 of said alterations are present.

Claim 7 (original): The hybrid polypeptide of claim 1, wherein said hybrid polypeptide consists of a sequence selected from the group consisting of SEQ ID NOs: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, and 43.

Claim 8 (original): A method of making a hybrid polypeptide comprising the step of introducing one or more alterations into a ORF0657n sequence segment at least about 100 amino acids in length, wherein at least one of said alterations increases sequence similarity to SEQ ID NO: 1.

Claim 9 (original): An immunogen comprising the modified ORF0657n sequence of claim 1 and one or more additional regions or moieties covalently joined to said sequence at the carboxyl terminus or amino terminus, wherein each region or moiety is independently selected from a region or moiety having at least one of the following properties: enhances the immune response, facilitates purification, or facilitates polypeptide stability.

Claim 10 (previously presented): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the immunogen of claim 1 and a pharmaceutically acceptable carrier.

Claim 11 (original): The composition of claim 10, wherein said composition further comprises an adjuvant.

Claim 12 (previously presented): A method of inducing a protective immune response in a patient comprising the step of administering to said patient an immunologically effective amount of the immunogen of claim 1.

Claim 13 (original): The method of claim 12, wherein said patient is a human.

Claim 14 (original): The method of claim 13, wherein said patient is being treated prophylactically against *S. aureus* infection.

Claim 15 (previously presented): A nucleic acid comprising a nucleotide sequence encoding the polypeptide of claim 1.

Claim 16 (original): The nucleic acid of claim 15, wherein said nucleic acid is an expression vector and said nucleotide sequence is part of a recombinant gene.

Claim 17 (original): A cell comprising the recombinant gene of claim 16, wherein said recombinant gene expresses said nucleic acid sequence in said cell to produce said polypeptide.

Claim 18 (original): A method for evaluating the efficacy of an immunogen to produce a protective immune response against *Staphylococcus* comprising the steps of:

(a) inoculating an animal model with said immunogen to produce an immunized animal model;

(b) challenging said immunized animal model with a *Staphylococcus* challenge at a potency that provides about 80 to 90% death in said animal model over a period of about 7 to 10 days starting on the first or second day, wherein said *Staphylococcus* challenge is produced from *Staphylococcus* grown to stationary phase, and said *Staphylococcus* challenge is intravenously introduced into said immunized animal model; and

(c) measuring the ability of said immunogen to provide protective immunity.

Claim 19 (original): The method of claim 18, wherein said *Staphylococcus* is *Staphylococcus aureus*.

Claim 20 (original): The method of claim 19, wherein said animal model is a rat or mouse.

Claims 21-23 (Canceled).